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EL7004-8 **Dr. Alexandru Spatariu**

The Online Learner **Activity # 2: Instructional Strategies and Interactivities**

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Interactivity in the Online Learning Environment

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Interactivity in the Online Learning Environment

Interactive online learning environments provide learners the freedom to be successful where they feel valued, connected, and engaged (Brindley, Walti, & Blaschke, 2009; Higley, 2013). Interactive online learning activities are required for learning and have many positive effects. Among these effects are motivation, efficacy, a sense of community, and engagement (Abrami, Bernard, Bures, Borkhovski, & Tamim, 2011; Pelz, 2011). Interactivity enriches the relationships of learners with instructors, other learning participants, course content, and the technological environment (Brindley, Walti, & Blaschke, 2009). Interactivity exists in every learning situation, for without it learning cannot take place.

Importance of Interactivity

The idea of interactivity is one of the necessary components of best practice in education as identified by Chickering and Ehrmann (1996), which includes various forms of communication, collaboration, and active learning. Interactivity in online education creates relationships between the learner and the course content, between other learning participants, the instructor, and technology (Allen, Crosky, McAlpine, Hoffman, & Munroe, 2006; Bradley, 2009; Er, Özden, & Arifoglu, 2009). These learning environments offer meaningful interactions and are most commonly found to incorporate synchronous and asynchronous learning activities (Hrastinski, 2008; Er et al., 2009; Simonson et al., 2012; Higley, 2013). Collaborative and team building activities encourage an interactive and engaging learning environment, which increases

the possibility of success each learner will experience throughout an online course (Abrami, et al., 2011; Pelz, 2011).

Benefits of Interactivity

Studies show that the benefits of increasing learner engagement between the learning content, the instructor, and other learning participants, aligned with the technology, results in greater learner efficacy (Lam & Bordia, 2008; Ferguson & DeFelice, 2010). Additionally, studies have shown that interactivity increases the learning outcomes (Abrami et al., 2011; Jackson, Jones, & Rodriguez, 2010, Martinez- Caro, 2011), improves learner motivation (Omar, Kalulu, & Belmasrour, 2011), and creates a sense of community where learning is a shared responsibility (Huang, Lin, & Huang, 2012; Lai & Savage, 2013). Interactivity provides learners with an enhanced learning environment where learner engagement is the most important and successful component of learning online (Er et al., 2009; Abrami et al., 2011; Jackson et al., 2010; Martinez- Caro, 2011; Huang, et al., 2012; Lai & Savage, 2013).

Disadvantages of Interactivity

Some educational theorists believe that online learners should discover knowledge using unguided problem-based instruction (Allen, et al., 2009). Although it is believed that problem-based and collaborative learning is "a strongly supported method for promoting student-centered learning" (Allen et al., 2009, p. 570), other researchers believe that "direct instruction involving considerable guidance" results in "vastly more learning than discovery" (Kirschner, Sweller, & Clark, 2006, p. 79). Additionally, poor course design and lesson construction provide the most harm to successful interactivity according to Lai and Savage (2013). These beliefs about online

interactivity are not meant to negate the benefits of interactivity but instead show that a specific and controlled learning structure can increases the cognitive load of the learning process (Carwile, 2007)

Efficacious Interactivity Types

Learner-to-Instructor Interactivity

The literature suggests that learner efficacy and success increases in online course environments as the instructor takes on the role of mentor and facilitator (Spatariu, Hartley, Schraw, Bendixen, & Quinn, 2007; Fredericksen, Pickett, Shea, Pelz, & Swan, 2000; Jackson et al., 2010), while learners become actively engaged in their own learning (Yang & Cornelious, 2005; Ferguson & DeFelice, 2010). In an online learning environment, the relationship between the learner and instructor is mostly asynchronous instruction (Yang & Cornelious, 2005; Higley, 2013). The "strongest predictor of learning" (p. 578) according to Martinez-Caro (2011) is the increased interaction between instructor and learner, while the lack of face-to-face interactions is the most significant contributor to learner dissatisfaction with online learning (Martinez-Caro, 2011; Lai & Savage, 2013). Of the seven most significant factors contributing to a learner's satisfaction, four are directly related to the amount of interactions the instructor has with the learners online (Chickering & Ehrmann, 1996; Jackson et al., 2010; Lai & Savage, 2013). These interactions can occur through synchronous and asynchronous activity types such as through Skype for face-to-face communication, Google docs for collaboration, email, and online discussion boards.

Learner-to-Content Interactivity

As noted in the previous paper EL7004-8-1 the relationship of the learner to content is the only required link in learning (Hrastinski, 2008; Er et al., 2009). When learners participate in virtual course activities and consider course content they participate in learner-content interaction. The online learning process requires that the learner interact with course content within the virtual learning environment (Hrastinski, 2008; Diaz & Entonado, 2009; Er et al., 2009; Huang et al., 2012). According to Yang and Cornelious (2005) learning is enhanced when learners take pause to adjust and stimulate their own curiosity for learning and understanding through course content. There are a few factors that influence learner-content interaction including; mode of delivery (Abrami et al., 2011), engagement (Lam & Bordia, 2008), and relevant course information (Yang & Cornelious, 2005).

Learner-to-Learner Interactivity

Theorists have shown that collaboration and interactivity between learners is a significant factor in online learning success (Chickering & Ehrmann, 1996; Yang & Cornelious, 2005; Spatariu, 2007; Jackson et al., 2010; Lai & Savage, 2013). Learners working with other learners tend to stimulate higher-order thinking, while decreasing a sense of isolation (Ferguson & DeFelice, 2010; Huang et al., 2012). Online collaboration and a sense of online learning communities increase learner participation through open discussions and lessen poor learner efficacy associated with online learning environments (Yang & Cornelious, 2005; Ferguson & DeFelice, 2010; Huang et al., 2012; Lai & Savage, 2013). Learner satisfaction with online course work has shown to significantly increase as the level of interactivity between participants also increases (Lam & Bordia, 2008; Ferguson & DeFelice, 2010; Ali & Ahmad, 2011).

Learner-to-Technology Interactivity

The wealth of new technology and Web 2.0 resources online give way for greater learning opportunities than the traditional pencil and paper (Er et al., 2009; Simonson et al., 2012; Higley, 2013). The online learning environment necessitates the interaction of the learner with technology, and to learn successfully requires the learner to have a comfortable level of efficacy with the appropriate technology (Bradley, 2009). Learners must be able to interact successfully with the mediating technology in order to successfully navigate the learning environment (Berge, 1995). One poor experience with an online course because of connectivity, poor instructional design, or lack of interactivity may inhibit learners from perusing additional online courses (Martinez-Caro, 2009). Therefore, it seems vital that a meaningful relationship between learner and technology be supported and maintained as an essential responsibility by the instructor. Reducing negative variables between learner and technology will help increase learner efficacy and overall course success (Lu, Yu, & Liu, 2003; Martinez-Caro, 2009).

Interactivity Strategies

Learner-to-Instructor Strategies

It is essential for the instructor to facilitate and augment the interaction that the learner has with the instructor (Spatariu, 2007). Several strategies for nurturing the learner-instructor relationship has been developed and discussed to include providing sufficient lesson scaffolding to encourage the learner without dominating the discussion, focusing on issues that relate directly to the learner, and introducing collaborative activities that allow leaners to work with others (Cercone, 2009). Additionally, collaborative activities also suggest as a means of meeting various learning styles. Jackson et al. (2010) suggested “prompt feedback, use of humor or emoticons, referring to the student by name in written communication, discussion prompts, and sharing of personal examples” (p. 81) as a means of aiding the student-teacher relationship.

Each of these strategies suggests a nurturing facilitator that supports the learner and learning within that environment.

Learner-to-Content Strategies

To enhance the learner-content interaction, instructors should ensure that the concepts and information of the course are clearly stated and relevant to the learner in order to promote increased learner engagement with the content (Ali & Ahmad, 2011; Lam & Bordia, 2008). Activities should be useful, optimizing learner motivation to study the material therefore, enhancing the learning environment (Albrami et al., 2011). Any interactivity that increases learner efficacy in the content is a viable strategy for developing and deepening the learner-content relationship.

Learner-to-Learner Strategies

Learner-learner interactivity includes a learner interacting with another learning participant and is not always just discussion (Pelz, 2010). When instructors include collaborative activities or projects into the online experience, learner-learner interactivity increases (Chickering & Ehrmann, 1996; Yang & Cornelious, 2005; Jackson et al., 2010; Lai & Savage, 2013). Online discussions foster not only learner to instructor communication (Spatariu, 2007), but can increase the connection that a learner has with the learning community (Yang & Cornelious, 2005; Ferguson & DeFelice, 2010; Huang et al., 2012). These online learning experiences can be fostered through social exchanges such as through texting chat forums, or real world and problem based scenarios. Instructors should encourage these learning communities and techniques thereby increasing learner knowledge, while assisting others in the acquisition of learning.

Learner to Technology Strategies

It is essential for the instructor to facilitate and expand the interactions that learners have with their learning environments (Bradley, 2009). The instructor must create a learning environment where provided technology support is present to help facilitate learner success in the course (Berge, 1995; Bradley, 2009). The use and encouragement of multimedia tools and resources online help to facilitate a variety of performance outcomes specific to the learner. In addition, the instructor should be prepared to suggest alternative solutions to the technology being used if the current environment and technology is not conducive to learner success. One focus of the instructor when fostering the learner-technology relationship should be to minimize technology related issues. When the instructor reduces these distractions the learning is maximized creating relationships with the instructor, the content, and other learners (Lu, Yu, & Liu, 2003; Er et al., 2009; Martinez-Caro, 2009; Simonson et al., 2012).

Conclusion

Online learners require interaction and collaboration to effectively learn online. Interactivity enhances the learning experience when learners are encouraged to create and actively engage with the content and each other. In addition, an instructor who successfully develops and sustains a learning environment in which these relationships and connections are supported will increases overall student learning (Martinez- Caro, 2011; Huang, et al., 2012; Lai & Savage, 2013). Instructors who create an interactive and collaborative online learning experience and environment promote learner satisfaction, motivation, and facilitate deeper cognitive learning. Interaction fosters the relationships that are essential for learning to take place in an online course; between learner and instructor, learner and content, learner and instructor, and learner and the relevant technology.

References

Abrami, P. C., Bernard, R. M., Bures, E. M., Borokhovski, E., & Tamim, R. M. (2011). Interaction in distance education and online learning: Using evidence and theory to improve practice. *Journal of Computing in Higher Education, 23*(2-3), 82-103. doi:http://dx.doi.org/10.1007/s12528-011-9043-x

Ali, A., & Ahmad, I. (2011). Key factors for determining students' satisfaction in distance learning courses: A study of Allama Iqbal Open University. *Contemporary Educational Technology, 2(2)*, 118-134. Retrieved from http://eric.ed.gov/?id=EJ964984

Allen, B., Crosky, A., McAlpine, I., Hoffman, M., & Munroe, P. (2006, December). A blended approach to collaborative learning: Can it make large group teaching more student-centred. In *Proceedings of the 23rd annual conference of the Australasian Society for Computers in Learning in Tertiary Education: Who's learning*, pp. 33-41. Retrieved from http://www.ascilite.org.au/conferences/sydney06/proceeding/pdf_papers/p125.pdf

Berge, Z. L. (1995). Facilitating computer conferencing: Recommendations from the field. [berge@umbc.edu]. *Educational Technology, 35*(1), pp. 22-30. Retrieved from http://www.cordonline.net/mntutorial2/module_2/Reading%202-1%20instructor%20role.pdf

Bradley, J. (2009). Promoting and supporting authentic online conversations - which comes first - the tools or instructional design?. *International Journal Of Pedagogies & Learning*, *5*(3), pp. 20-31. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=52869764&site=eds-live

Brindley, J. E., Walti, C., & Blaschke, L. M. (2009). Creating Effective Collaborative Learning Groups in an Online Environment. *International Review Of Research In Open & Distance Learning*, *10*(3). Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=48657080&site=eds-live

Carwile, J. (2007). A Constructivist Approach to Online Teaching and Learning. *Inquiry*, *12*(1), pp. 68-73. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ833907&site=eds-live

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *Association for the Advancement of Computing in Education Journal (AACE), 16*(2), 137-159. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ805727&site=eds-live

Chickering, A. W., & Ehrmann, S. C. (1996). Implementing the seven principles: Technology as lever. *AAHE bulletin*, *49*, pp. 3-6. Retrieved from http://www.tltgroup.org/programs/seven.html

Diaz, L. A., & Entonado, F. B. (2009). Are the functions of teachers in e-learning and face-to-face learning environments really different? *Educational Technology & Society, 12*(4), pp. 331-343. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=44785119&site=eds-live

Er, E., Özden, M., & Arifoglu, A. (2009). LIVELMS: A Blended e-Learning Environment: A Model Proposition for Integration of Asynchronous and Synchronous e-Learning. *International Journal Of Learning*, *16*(2), pp. 449-460. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=43278661&site=eds-live

Ferguson, J. M., & DeFelice, A. E. (2010). Length of Online Course and Student Satisfaction, Perceived Learning, and Academic Performance. *International Review Of Research In Open And Distance Learning*, *11*(2), pp. 73-84. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ895748&site=eds-live

Fredericksen, E., Pickett, A., Shea, P., Pelz, W., & Swan, K. (2000). Student satisfaction and perceived learning with on-line courses: Principles and examples from the SUNY learning network. *Journal of Asynchronous Learning Networks*, *4*(2), pp. 7-41. Retrieved from http://www.emergingonlinelearningtechnology.org/conference/proceedings/1999Summer/papers/99summer_fredericksen2.pdf

Hrastinski, S. (2008). Asynchronous & synchronous e-learning. *EDUCAUSE Quarterly*, *31*(4), pp. 51-55. Retrieved from http://net.educause.edu/ir/library/pdf/eqm0848.pdf

Higley, M. (2013, October). Benefits of Synchronous and Asynchronous e-Learning. [online blog]. *E-learning Industry.* Retrieved from http://elearningindustry.com/benefits-of-synchronous-and-asynchronous-e-learning

Huang, E. Y., Lin, S. W., & Huang, T. K. (2012). What type of learning style leads to online participation in the mixed-mode e-learning environment? A study of software usage instruction. *Computers & Education, 58*(1), pp. 338-349. Retrieved from http://192.192.107.208/FileUpload/upfile/%E9%BB%83%E5%9C%8B%E8%8F%AF20120116162433_CAE%E6%AD%A3%E5%BC%8F%E7%89%88.pdf

Jackson, L. C., Jones, S. J., & Rodriguez, R. C. (2010). Faculty Actions that Result in Student Satisfaction in Online Courses. *Journal Of Asynchronous Learning Networks*, *14*(4), pp. 78-96. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ909918&site=eds-live

Kirschner, P., Sweller, J., & Clark, R. (n.d). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, *41*(2), pp. 75-86. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000237616600001&site=eds-live

Lai, A., & Savage, P. (2013). Learning Management Systems and Principles of Good Teaching: Instructor and Student Perspectives. *Canadian Journal Of Learning & Technology*, *39*(3), pp. 1-21. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=91743438&site=eds-live

Lam, P., & Bordia, S. (2008). Factors Affecting Student Choice of e-Learning over Traditional Learning: Student and Teacher Perspectives. *International Journal Of Learning*, *14*(12), pp. 131-139. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=35789246&site=eds-live

Lu, J., Yu, C. S., & Liu, C. (2003). Learning style, learning patterns, and learning performance in a WebCT-based MIS course. *Information & Management, 40*(6), pp. 497-507. Retrieved from http://dx.doi.org/10.1016/S0378-7206(02)00064-2

Martinez-Caro, E. (2011). Factors affecting effectiveness in e-learning: An analysis in production management courses. *Computer Applications in Engineering Education, 19*(3), pp. 572-581. Retrieved from http://illiad.ncu.edu/illiad/illiad.dll?SessionID=P134743944M&Action=10&Form=75&Value=56443

Omar, A., Kalulu, D., & Belmasrour, R. (2011). Enhanced instruction: The future of e-learning. *International Journal of Education Research, 6*(1), 21-37. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=61232476&site=eds-live

Pelz, B. (2010). (My) Three Principles of Effective Online Pedagogy. *Journal Of Asynchronous Learning Networks*, *14*(1), pp.103-116. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ909855&site=eds-live

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2012). *Teaching and learning at a distance: Foundations of distance education*. (5th ed.). Boston: Pearson.

Spatariu, A., Hartley, K., Schraw, G., Bendixen, L. D., & Quinn, L. F. (2007). The Influence of the Discussion Leader Procedure on the Quality of Arguments in Online Discussions. *Journal Of Educational Computing Research*, *37*(1), pp. 83-103. Retrieved from http://proxy1.ncu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=26198597&site=eds-live

Yang, Y., & Cornelious, L. F. (2005). Preparing instructors for quality online instruction. *Online Journal of Distance Learning Administration, 8*(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring81/yang81.htm